

REJECTION UNDER 35 U.S.C 112, SECOND PARAGRAPH

Applicant cancels claim 13 herein.

REJECTIONS UNDER 35 U.S.C. 102(e)

Applicant amends claims 18 and 27 herein.

REJECTIONS UNDER 35 U.S.C. 103(a)

Applicant cancels claims 2-8, 11-13, 17, 19-26, and 28-33 and amends claims 1, 10, 14-15, 18, and 27 herein to more clearly define the invention. Applicant respectfully traverses the rejection of claims 9 and 16.

Regarding claim 1, the cited prior art fails to teach or fairly suggest the feature of the present invention of including a committed number of hours in its calculation of the normalized excess capacity of participating computers. Robertazzi's system (column 6 lines 27 and 44-46) evaluates only current costs of available processors and must constantly update the status and availability of processors. Ellis teaches that nighttime operation might provide useful uninterrupted availability but also fails to provide the concept of committing a processor to a given number of hours of service a priori as is taught and claimed by the present invention. In contrast, see paragraphs 27 and 28 of the published version of this patent application, for example.

Regarding claims 18 and 27 as amended, the cited prior art fails to teach or fairly suggest partitioning a program into independent tasks of approximately equal size as taught in paragraph 31 of the published version of this patent application, for example. This

partitioning facilitates task assignment and increases overall job reliability as will be discussed in more detail below.

Regarding claim 14 (and claims 18 and 27 as amended), the cited prior art also fails to teach or suggest predictive task problem detection during task processing. In contrast, paragraphs 34-35 of the published version of this patent application teach that portions of the overall job (e.g. a set of allocated tasks) that are probably not going to be covered adequately are reassigned to free machines as capacity is observed to become available, thus ensuring that every program task has been executed by at least one participant to increase the likelihood that the overall job will be performed within a predicted schedule.

Regarding claim 9, Applicant notes that the cited prior art references neither teach nor suggest providing benchmark tests to participating machines to more precisely estimate their normalized excess capacity. The prior art merely polls participant machines to get their own capacity estimates, while the present invention relies on actual test data to qualify participants prior to accepting them, increasing job reliability and reducing the need for system adjustments during job execution.

Regarding claim 10, in paragraphs 29 and 31 of the published version, the specification describes the assignment of tasks in an overlapping manner to “tile” a computational job “space” with several layers of concurrent tasks, i.e. effectively assigning multiple machines per task for increased reliability in overall job execution. [Note, the published patent application contains a transcription error; paragraph 29 line 5 includes the word “file” which should be “tile”. See page 7 line 24 of the specification as filed.] The assignment of tasks in this “tiling” scheme is simplified when each task is of substantially equal size. The prior art neither teaches nor suggests redundant task assignment for

reliability. Along these same lines, regarding claim 16, Robertazzi teaches simply changing the availability status of a processor to “busy” to indicate it is not available for any more assigned tasks in the future. In contrast, for example in paragraph 35 of the published version of the specification, the present invention teaches that some (not necessarily all) of the tasks previously assigned to a slow machine are redistributed and reassigned to other available machines. The slow machine is not simply cut out of the system, but instead its load of already-assigned tasks is merely reduced. This difference is important when utilizing the “tiled” task assignment scheme discussed above, i.e. when groups of tasks have been distributed to participating machines in a manner designed to minimize the dependence on any particular machine. The initial task assignment need not be entirely discarded.

All pending claims are believed to be allowable as amended. The prior art made of record and not relied upon has been carefully reviewed. The Examiner is invited to call Applicants’ undersigned representative if a telephone conference will expedite the prosecution of this application.

Respectfully submitted,

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